



Borough of Southend-on-Sea.

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ANNUAL REPORT

OF

MR. G. F. JONES, M.R.C.S., L.S.A.,

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR

— 1893. —

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SOUTHEND-ON-SEA :

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*To the Mayor, Aldermen and Councillors of the Borough of  
Southend-on-Sea.*

GENTLEMEN,

I have pleasure in presenting my Second Annual Report.

**Population.**

The population in April, 1881, was 7,979; April, 1891, 12,333; on the 1st of July, 1892, it was estimated to be 13,174; this according to the census rate of increase gives on the 1st of July, 1893, 13,603; this Borough being a rapidly increasing district in my opinion the census rate is inapplicable. It appears that from the 15th June, 1891, to July, 1893, there were 607 additional houses completed: allowing an average of 5·2 persons to each house, and adding the total to the census of 1891, viz: 12,333, gives a population of 15,489 on the first of July, 1893; in this calculation no account is taken of the number of additional houses erected between April 1st (the date of the census of 1891) and June 1st, 1891, and I consider this may counterbalance any deduction which ought to be made from the above figures in respect of uninhabited houses. Adding to the above 15,489 2,500 in respect of visitors makes an average population of 17,989. I have calculated the death rate upon each of the above estimates of population but for the purpose of the other statistics I have adopted the estimation of 13,603.

**Area.**

The area of the Borough is 3441 acres, averaging 4·6 persons per acre.

The following figures may be interesting as showing the varying numbers that in a sanitary point of view have to be dealt with. The Great Eastern Railway Company give the following return of persons travelling from London and suburban stations to Southend from March to September last inclusive:—

Ordinary Tickets	...	...	...	...	29,716
Tourist	„	...	...	...	6,405
Fortnightly	„	...	...	...	1,782
Friday and Saturday till Monday	...	...	...	...	11,979
Special Parties and Excursions	...	...	...	...	175,446
					<hr/>
					225,328

The L.T. & S.R. Co. supply the following like particulars from May to September last inclusive:—

London and all stations to Benfleet to				
Southend	...	...	...	51,115
Return	...	...	...	165,909
Leigh and Shoebury to Southend	...	...	...	76,049
Do. Return	...	...	...	19,420
				<hr/>
				312,493

Number of passengers landed at the Pier				
by the various Steam Boat Companies	...	...	...	...
May to September	...	...	...	134,548
				<hr/>

Total ... 672,369

The above figures show the watchfulness that is continually required to cope with any disease that may arise.

### Births.

In 1892 the number registered was 351, and in 1893, 392; males 193, females 199. This shews an increase on the smaller population of 28·81 and on the larger of 24·34.

### Deaths and Death rate.

The number of deaths was 197; of this number twelve were visitors, and accordingly I deduct them for the purpose of calculating the death-rate, but I add six in respect of the number of Southend paupers who died during the year in the Roehford Union Workhouse. Of the total of 191 thus obtained 45 were children under the age of one year, and 45 were of the age of 65 and upwards.

The above figures give the death rate as under :—

On the average population of 17,989	...	..	10·91
On the population (excluding visitors) of 15,489	...	...	12·33
On the population of 13,603, calculated upon the census rate of increase	..	..	14·04

### Zymotic Diseases.

The returns for these diseases are as follows, viz :—

	Total No. of Cases.	Imported.	Deaths.	Death Percentage.	1000
Smallpox	6	0	0	0·00	
Measles	...	...	2	0·12	
Scarlet Fever	68	7	1	0·06	
Diphtheria	64	9	6	0·37	
Whooping Cough	...	...	...	0·00	
Diarrhoea & Dysentery	...	...	8	0·59	
Fever	149	16	16	0·80	
There were four deaths uncertified.				1·94	

### Inquests.

Nine inquests were held during the year.

### Water.

The Southend Waterworks Company draw their supply from beneath the chalk underlying the London clay. Two wells in the Borough and one in Eastwood of the depth of about 900-ft. supply the district with water. A fourth well within a mile of Rayleigh is being completed. The Company are applying to Parliament for powers to extend their area for well-sinking into the Parish of Thundersley. The supply is constant and unlimited. All analyses of the water have proved it to be good for domestic purposes.



### Private Surface Wells.

Five samples of water have been taken from private surface wells and analysed. All proved unfit for drinking or domestic purposes and steps were taken to close the wells or to prevent the further use of the water. The Health Committee are at the present time engaged in a thorough investigation of all the surface wells in the Borough, with a view of bringing about the closing and filling in of all such where the water is unfit and likely to be used for drinking or domestic purposes. All owners should assist this Committee by helping to remove what is a continual source of danger.

### Waterclosets.

Steps are also being taken by the Health Committee to enforce the provision where necessary of a proper water supply and cisterns and flushing apparatus to waterclosets.

That part of Prittlewell, in North Street, which slopes in a northerly direction and is at present beyond the main sewerage system and in connection with the tank in the Priory field, which overflows into the brook, will soon have to be taken seriously in hand. There are thirty-nine houses in this district that have only privy accommodation. I recommend the Council to take the proper drainage of this part seriously into their consideration.

### Dustbins.

Galvanised dust-bins are gradually being substituted for the old brick ashpits, cleanliness with the latter being out of the question.

### House Refuse.

Refuse is collected about once a fortnight in the winter and twice a week in the summer, and there is a daily removal in places. No method is so efficacious as a daily removal over the whole district, I strongly advise this to be done. This refuse is still burnt in the open air, and the smouldering heaps give off at times a most sickly and offensive odour; dwelling-houses are being extended towards the site of one of these heaps, and great complaint is made by persons living in the locality. It is most important that other means of disposal should be devised, either by a refuse destructor or by some other effectual method.

### Overcrowding.

The question of overcrowding in the summer is a problem requiring great attention in this town.

### Houses of Working Classes.

The houses of the working classes are for the most part in a good condition; the sanitary improvements that are constantly taking place are by degrees raising the standard of excellence.

### Borough Cemetery.

The steps that are being taken to obtain a Borough Cemetery should be proceeded with without delay, the rapidly increasing population in the large district of St. John's rendering the movement necessary.

### Work done.

The following is some of the sanitary work that has been under my own observation during the year :—

380 houses visited.  
 799 inspections of premises.  
 51 nuisances discovered.  
 125 house drains seen in process of testing.  
 14 stables visited.  
 17 slaughter-houses inspected.  
     9 cowsheds                   "  
     8 dairies                    "  
 15 bakehouses                "  
 32 fish shops                 "  
     6 provision shops        "  
 26 urinals                    "  
 83 notices of various kinds to Sanitary Inspector.  
 99 notices to Surveyor.  
 13 sanitary certificates issued.  
 250 visits to Sanitary Hospital.

### Inspector of Nuisances.

The following is a summary of the work done by the Inspector of Nuisances :—

109 notices served on owners of defective premises.  
 234 houses tested, work done and re-tested.  
 87 nuisance notices served.  
 83 nuisances removed or abated.  
 43 visits to slaughter-houses.  
 27 visits to milk shops.  
 29 visits to fruit shops—a quantity of fruit destroyed.  
 33 visits to fish shops—a quantity of cockles destroyed  
 15 visits to bakers' shops.  
 75 patients removed to Hospital.  
 145 premises disinfected.

- 4 houses cleansed, disinfected, and bedding destroyed.
- 62 w.c.'s. supplied with water.
- 4 samples of water to Analyst.
- 2 cesspools filled in.
- 2 wells closed.
- 24 public-houses inspected and reported.
- 3 urinals built at public-houses.
- 112 wells reported upon.
- 59 visits with provisions, &c., to houses infected with small pox.
- 4 inspections of district with Medical Officer of Health.

### **The Building Inspector reports:—**

- 4474 feet of new roads made.
- 3548 feet of new sewers made.
- 8948 feet „ paths made.
- 252 houses completed.
- 8820 feet of new drains averaging 32 feet to each house.

During the summer months I have made, with the Inspector of Nuisances, periodic inspections of fish shops and stalls and fruit shops and stalls, resulting in a quantity of fish and fruit being destroyed as unfit for food.

I would recommend the Council to relieve the Inspector of Nuisances from testing drains during the Summer, and to employ some other officer in this work, as the general inspection of the district is as much as one man can efficiently do.

### **Urinals, &c.**

In October the urinal accommodation of various hotels in the Borough was reported upon, and the action of the Health Committee resulted in much additional provision being made and in situations more accessible. I would urge upon the Town Council the necessity of providing public sanitary conveniences for both sexes, and especially on the sea front. I understand that steps are already being taken in this direction.

### **Infectious Diseases and Disinfection.**

Each house in which a case of infectious disease is notified is visited, and if allowed, means are at once taken to remove the patient to the Hospital; if the patient remains at home two printed notices are left, one with full directions to prevent spread of disease, the other to be returned to me in order that the premises may be disinfected as soon as the patient is convalescent. These directions are generally carried out, and in the meantime the house drains are regularly disinfected until the patient's recovery.



### Measles and Whooping Cough.

These diseases are not notifiable, but as far as I can ascertain they have not been prevalent.

### Infectious Diseases Hospital.

Most of the Sanitary Hospital work is still carried on upon the temporary premises, hired in 1890, but the Council has directed notice to be given to determine the tenancy with a view to the transference of all cases to the new Hospital premises. Great pressure has been put upon the staff, the severe cases of enteric fever having required a large outlay for additional nurses.

Most of the cases of diphtheria, which have been of a mild type, have been treated at home for the want of room in the Hospital.

The Council in the spring of the year obtained  $2\frac{1}{2}$  acres of ground in the district of St. Mary's (the highest point in the Borough) to be used for a permanent Infectious Hospital, and in August, whilst the site was being enclosed, an iron structure was erected to serve as a temporary building for scarlet fever, which, for want of accommodation had been previously excluded from the Hospital.

The temporary iron building was occupied up to October, when it was abandoned through cold weather.

The Council erected a permanent structure with two wards which, on completion, was appropriated to cases of small pox.

I am pleased to say that the Council are doing their best to carry out the Local Government Board requirements in the erection of the new Hospital pavilions. The disinfecting chamber has been used frequently. The laundry portion will require additions to make it adequate for its work.

### Ambulance.

A hand ambulance has been acquired, but it is hard work for the men to move it from distant parts of the Borough to the Hospital. A four-wheeled horse ambulance is much needed for the removal of patients in bad weather.

### Enteric Fever.

151 notifications of disease were sent to me during the year, from which have to be deducted 16 imported cases; one subsequently withdrawn, and three continued fever.



The remaining 132 are arranged in the following table for the purpose of analysis :—

Jan. Feb. Mar. Apl. M'y. Ju. J'y. Au. Sep. Oct. Nov. Dec.														
Under 5 years	{	...	...	...	...	..	...	...	1	...	...	1	2	4
		...	...	...	...	...	...	1	...	...	...	...	...	1
between 5 and 10	{	...	...	...	...	...	1	...	1	1	...	2	1	6
		...	...	...	...	...	2	1	3	2	2	2	...	12
10 & 15 .	{	...	1	...	...	...	4	.	1	2	1	4	...	13
		...	...	...	...	...	1	3	2	...	4	1	...	11
15 & 20 .	{	...	1	...	...	1	4	...	1	1	1	2	...	11
		...	...	...	...	...	1	1	1	1	1	2	...	7
20 & 30 .	{	...	...	...	...	...	5	6	1	3	8	1	1	25
		...	1	1	..	...	2	3	2	1	1	1	3	15
30 & 40 .	{	...	...	...	1	...	1	...	...	...	...	1	...	3
		...	...	...	1	..	3	1	1	2	..	4	...	12
40 & 50 .	{	...	...	..	...	...	..	...	...	...	...	...	1	1
		...	1	...	...	...	...	...	...	...	1	4	...	6
50 & 60 .	{	..	...	...	...	...	...	...	...	...	1	...	...	1
		...	...	...	...	...	...	...	1	1	...	...	...	2
60 & 70 .	{	...	...	...	...	...	...	1	...	...	...	...	...	1
		...	...	...	1	...	...	..	...	..	...	...	...	1
Males	...	...	2	...	1	1	15	7	5	7	11	11	5	65
Females	...	...	2	1	2	...	9	10	10	7	9	14	3	67

Nine cases of this fever developed during the first five months of the year, five occurred in houses in connection with the Brewery Road sewer and its branches, three in Porter's Town and one in North Mead.

Twenty-four notifications were received in June; four of these originated in Porter's Town, seven in North Mead, five on the Brewery Road Sewer.

Here again these three portions of the Borough shew by far the largest proportion, there being sixteen out of twenty-four cases.

Another important item is that in the June outbreak the cases of males were almost twice as many as those of females.

After June although the above named three districts added their quota to the list, the disease gradually spread itself over the whole

Borough and continued with little varying severity, except in September, till the middle of December when it ceased.

About the 18th October four men in the employ of the Waterworks Company were trenching for a water main at the back of the Gas Works. They all complained of the terrible stench arising from the flooded trench near the sewer. They all became ill. Three developed Enteric Fever. Two of them died and the other made a prolonged recovery.

The three chief causes of Enteric Fever are contaminated milk and water and defective condition of drains and sewers. In the 24 cases in June the milk was obtained from no less than 15 different milkmen, and no one milkman supplied more than two infected houses, and this system of milk supply has prevailed throughout the year. Water analysis has shown that that is unlikely to have been the means of disseminating this disease, for when that is so many more women than men are attacked, they as a rule drinking more water, but in this instance the return of cases in June shews the proportion of two males to one female. Under all these circumstances my opinion, which has repeatedly been stated to the Health Committee is that the sewers are the cause of this endemic typhoid state ; this danger I am sanguine will be removed by the new sewerage and outfall scheme which the Council is now pushing forward.

There have been used for flushing purposes 1,805,000 gallons of water.

### **Diphtheria and Scarlet Fever.**

Of these diseases there is nothing special to report. The cases were generally of a milder type than last year.

### **Small-pox.**

One case occurred in July which it was impossible to trace to its origin. The patient (a man) had not left the Borough for weeks and he worked in the erection of a comparatively isolated house. The next case (which may be said to have been imported) was that of a woman aged 62 who was visited by her daughter from a distance and with whom she slept for three nights ; it turned out that the daughter had been suffering from the disease and had not fully recovered. Four other cases resulted from this last-mentioned case, the last victim being the Inspector of Nuisances.

### **Influenza.**

Influenza of a mild type was prevalent in the Autumn but no deaths resulted from its direct effect.

### Sanitary Hospital.

Patients remaining in Hospital Jan. 1st., 1893	...	...	4
„ admitted during the year	„	...	81
„ remaining December 31st	„	...	4
Patients admitted from			
			deaths.
Enteric fever	...	52	11
Diphtheria	...	17	2
Scarlet fever	...	9	...
Small pox	...	3	...

The total number of days that patients were in the Hospital was 2033, averaging 25·08 days to each patient.

The matron and staff worked most zealously and efficiently, being severely pressed with very heavy work during part of the year, and I have to thank them for the assistance they rendered me.

On December 31st only four convalescents remained and these were discharged by January the 11th, leaving the Hospital empty.

### Conclusion.

I have no doubt that the efforts of the Chairman and individual Members of the Health Committee made during the past year with the object of ascertaining the initial causes of disease and for remedying the same, together with the personal and thorough examination of the sewers made through the conjoint action of the Health and Highways Committees, and which I advocated, have in a great measure brought about the more efficacious flushing and cleansing of the sewers, and this has doubtless contributed in a great degree to the total freedom from infectious disease which the Borough enjoys at the date of this Report. I strongly urge the Council to persevere in the improved system of flushing and cleansing.

Accompanying this report are the two Government statistical returns, a copy of each having to be sent to the Local Government Board, the County Council, and the Town Council.

They should be printed *in extenso* and bound with this report that they may show in a tabulated form the information which has been discussed in the body of this report.

I remain, Gentlemen,

Your obedient Servant,

G. F. JONES, M.R.C.S., &c.,

*Medical Officer of Health.*

19TH JANUARY, 1894.



Local Government

*TABLE OF DEATHS during the Year 1893, in*  
DISEASES, AGES,

NAMES OF LOCALITIES adopted for the purpose of these statistics; public institutions being shown as separate localities  (Columns for Population and Births are in Table B.)  (a)	MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.						
	At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and up- wards.
	(b)	(c)	(d)	(e)	(f)	(g)	(h)
ST. JOHN'S ... ..	90	20	5	7	3	42	13
ALL SAINTS ... ..	23	9	3	...	2	6	8
ST. MARY'S ... ..	56	16	4	1	4	16	15
SANITARY HOSPITAL ... ..	13	...	2	2	6	3	...
VICTORIA HOSPITAL ... ..	1	...	...	1	...	...	...
ST. MARY'S HOLIDAY HOME ...	...	...	..	...	...	...	...
ST. MARY'S CONVENT ... ..	2	...	...	1	...	1	...
NAZARETH HOUSE ... ..	7	...	1	2	...	...	4
TOTALS ...	197	45	15	14	15	68	40

The subjoined numbers have also to be taken into

Deaths occurring outside the district among persons belonging thereto.	6	...	...	...	...	1	5
Deaths occurring within the district among persons not belonging thereto	12	3	...		2	7	...



Board Table. (A)

*the Borough of Southend-on-Sea, classified according to*

*and LOCALITIES.*

(i)	MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.													
	Scarlatina.	Diphtheria.	Membranous Croup.	FEVERS		Measles.	Diarrhoea and Dysentery.	Rheumatic Fever.	Phthisis.	Bronchitis, Pneumonia, and Pleurisy.	Heart Disease.	Injuries.	All other Diseases.	TOTAL.
				Enteric or Typhoid	Puerperal									
Under 5		2					4			2			17	25
5 upwds.	1	1	1	6	1			1	9	10	6	5	24	65
Under 5			1				1			2			8	12
5 upwds.		1							4	2	1		8	16
Under 5				1		2	1			4			13	21
5 upwds.							1		8	5	5	2	14	35
Under 5		2												2
5 upwds.				11										11
Under 5														
5 upwds.		1												1
Under 5														
5 upwds.														
Under 5														
5 upwds.													2	2
Under 5													1	1
5 upwds.							1		1	1			3	6
Under 5		4	1	1		2	6			8			39	61
5 upwds.	1	3	1	17	1		2	1	22	18	12	7	51	136

account in judging of the above records of mortality.

Under 5										1			2	3
5 upwds.													3	3
Under 5										1			2	3
5 upwds.				2					1	3	2		1	9

Local Government Board Table. (B)

TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS, coming to the knowledge of the Medical Officer of Health, during the year 1893, in the Borough of Southend-on-Sea; classified according to DISEASES, AGES, and LOCALITIES.

Names of Localities adopted for the purpose of these Statistics; Public Institutions being shown as separate localities.	Population at all Ages.		Registered Births.	Aged under 5 or over 5.	New cases of Sickness in each Locality coming to the knowledge of the Medical Officer of Health.							Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.						
	Census 1891.	Estimated to middle of 1893.			Smallpox.	Scarlatina.	Diphtheria	Membranous Croup.	FEBRILE.		Erysipelas.	Smallpox.	Scarlatina.	Diphtheria	Membranous Croup.	FEBRILE.		
									Enteric or Typhoid.	Continued						Enteric or Typhoid.	Continued	Puerperal
(a)	(b)	(c)	(d)	(e)														
S. JOHN'S	...	...	...	Under 5 5 upwds.	11 1	6 34	41	...	4 81	...	1 1	1 13	1 1	6 5	2 5	21*	...	...
ALL SAINTS	...	...	...	Under 5 5 upwds.	3 5	12 3	1	...	23 1	...	3 1	2 2	2 1	2 2	9	...	...	
St. MARY'S (H)	...	12333 13603	392	Under 5 5 upwds.	3 14	1 14	1	...	2 37	...	1 8	1 6	2 24	...	...	...	...	
VICTORIA HOSPITAL.	...	...	...	Under 5 5 upwds.	...	...	1	...	2	...	...	...	...	...	...	...	...	
St. MARY'S HOME	...	...	...	Under 5 5 upwds.	...	...	...	1	...	...	...	...	...	...	...	...	...	
TOTALS	...	12333 13603	392	Under 5 5 upwds.	17 6	8 51	67	1 2	6 143	2 2	1 1	2 24	3 3	1 8	4 13	54	...	

\* Two of these in the early part of the year removed to Rochford Hospital. (H) District in which Sanitary Hospital is situated.



